

Title 131 - NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY

Chapter 4- GENERAL REQUIREMENTS FOR WASTEWATER TREATMENT WORKS PROJECTS

001 Procurement Standards for Engineering Services and Construction Contracts. Loan applicants will use their own procurement procedures which reflect applicable state and local laws and regulations. The Department will provide a guidance document to assist in procurement of engineering services.

001.01 For engineering services to be eligible, the loan applicant will submit to the Department the appropriate professional services agreement for planning, design, and/or construction administration services. The Department will review the agreement(s) for eligibility.

001.02 The Department will review costs and will provide assistance for engineering costs which are considered reasonable and acceptable. Costs that appear excessive or unjustified may be limited for loan participation. The Department may provide an allowance for planning and/or design costs. The Department may use 40 CFR Part 35 Appendix B dated February 17, 1984 as a tool to determine the allowance for engineering services.

001.03 For construction contracts the loan recipient shall follow the procedures under Chapter 4, 006.01.

002 Public Participation. Loan applicants shall conduct a minimum of the following:

002.01 One public meeting when facility planning alternatives have been developed, but before an alternative has been selected, to discuss all alternatives under consideration and the reasons for rejection of others. Public notice shall occur not less than 30 days prior to the public meeting.

002.02 One public hearing prior to formal adoption of a facility plan to discuss the proposed facility plan, financial aspects of the project, proposed annual residential and industrial user charges, and any needed mitigation measures. Public notice shall occur at least 45 days prior to the date of the hearing. However, where the Department determines that there are no substantial documents which must be reviewed for effective hearing participation and there are no complex or controversial matters to be addressed by the hearing, the notice requirement may be reduced to no less than 30 days. For noncontroversial projects the public meeting and the public hearing can be combined into one public hearing.

003 Environmental Review. Loan applicants will conduct environmental review of projects using the following procedures.

003.01 The loan applicant should work with the Department as early as possible in the facilities planning process to determine if the project qualifies for a categorical exclusion or whether a finding of no significant impact or an environmental impact statement is required.

003.02 Subparts A through E of 40 CFR Part 6, including §6.514, July 1, 1987 edition pertaining to Procedures for Implementing the Requirements of the Council on Environmental Quality on the National Environmental Policy Act, is hereby adopted and incorporated herein

004 Facility Planning Requirement. Loan applicants will conduct facility planning using the following procedures:

004.01 That projects apply best practicable waste treatment technology, which is the cost-effective technology that can transport and treat wastewater, separate combined sewers, and remove excessive infiltration and inflow in publicly owned Wastewater Treatment Works.

004.02 General Facility Planning Requirements. Facility planning shall demonstrate the need for proposed facilities. Through a systematic evaluation of alternatives that are feasible in light of the unique demographic, topographic, hydrologic, and institutional characteristics of the area, the facility plan will demonstrate that the selected alternative is cost-effective (i.e., is the most economical means of meeting the applicable effluent, water quality, and public health requirements over the design life of the facility while recognizing environmental and other nonmonetary considerations). The facility plan shall also demonstrate that the selected alternative is implementable from legal, institutional, financial, and management standpoints. All facility planning requirements may not be applicable to all types of projects. Comprehensive plans or engineering reports or studies may fulfill certain facility planning requirements.

004.03 Facility plan contents. A completed facility plan shall include:

004.03A A description of both the proposed Wastewater Treatment Works, and the complete Wastewater Treatment Works of which it is a part.

004.03B A cost-effectiveness analysis of the feasible conventional, innovative, and alternative Wastewater Treatment Works, processes and techniques capable of meeting the applicable effluent, water quality, and public health requirements over the design life of the facility while recognizing environmental and other nonmonetary considerations. The planning period for the cost-effectiveness analysis shall be 20 years. The monetary costs to be considered must include the present worth or equivalent annual value of all capital costs and operation and maintenance costs. A cost-effectiveness analysis shall include:

004.03B1. An evaluation of alternative flow reduction methods.

004.03B2. A description of the relationship between the capacity of alternatives and the needs to be served, including capacity for future growth expected after the Wastewater Treatment Works become operational. This includes estimated flows from significant industrial users.

004.03B3. Cost information on total capital costs and annual operation and maintenance costs, including estimated annual or monthly costs to residential and industrial users.

004.03C A demonstration of the nonexistence or possible existence of excessive infiltration/inflow in the sewer system. See Sec. 004.05.

004.03D An evaluation of the environmental impacts including ground water and surface water impacts of alternatives.

004.03E For the selected alternative, a concise description at an appropriate level of detail of at least the following:

004.03E1. Relevant design parameters;

004.03E2. Estimated capital construction and operation and maintenance costs, and a description of the manner in which costs will be financed;

004.03E3. Cost impacts on Wastewater Treatment Works users; and

004.03E4. Institutional and management arrangements necessary for successful implementation.

004.04 Submission and review of a facility plan. Each facility plan shall be submitted to the Department for review.

004.05 Infiltration/Inflow.

004.05A General. The loan applicant shall satisfactorily demonstrate to the Department that each sewer system discharging into the proposed Wastewater Treatment Works project is not or will not be subject to excessive infiltration/inflow. As an alternative loan applicants may propose long term program measures to limit infiltration and inflow. For previously existing combined sewers, inflow is not considered excessive in any event.

004.05B Inflow. If the rainfall induced peak inflow rate results or will result in chronic operational problems during storm events, or the rainfall induced total flow rate exceeds 275 gpcd (1040 lpcd) during storm events, the loan applicant may perform a study of the sewer system to determine the quantity of excessive inflow and to propose a rehabilitation program to eliminate the excessive inflow.

004.05C Infiltration.

004.05C1. If the flow rate at the existing Wastewater Treatment Works is 120 gpcd (450 lpcd) or less during periods of high groundwater, the loan applicant may build the project including sufficient capacity to transport and treat any existing infiltration. However, if the loan applicant finds any specific portion of its sewer system is subject to excessive infiltration, the loan applicant may document its finding in a cost-effectiveness analysis and propose a sewer rehabilitation program to eliminate that specific excessive infiltration.

004.05C2. If the flow rate at the existing treatment facility is more than 120 gpcd (450 lpcd) during periods of high groundwater, the loan applicant may perform a study of the sewer system to determine the quantity of excessive infiltration and propose a sewer rehabilitation program to eliminate the excessive infiltration.

005 Design requirements shall include, but not be limited to, the following:

005.01 A requirement that the design of Wastewater Treatment Works be by registered professional engineers and follow current design standards as required by the Department. The design engineer will complete the Department's design information forms and submit them to the Department with the construction contract plans and specifications.

005.02 Capacity for twenty years domestic and industrial growth or reasonable capacity as approved by the Department.

005.03 Construction contracts shall include:

005.03A Requirements for the contractor of the construction project to post separate performance and payment bonds or other security approved by the Department in the amount of the bid;

005.03B A complete statement of work to be performed, including design drawings, specifications, and the required performance schedule;

005.03C The terms and conditions of the subagreement to be awarded;

005.03D A clear explanation of the loan recipient's method of bidding and evaluating bid prices, and its method for awarding the subagreement;

005.03E Any applicable wage determination requirements;

005.03F The deadline and place to submit bids;

005.03G Requirement for bid bond for 5% of the contractor's bid.

006 Contract Award and Construction Activities.

006.01 Construction Contract Procurement and Bid Document Review and Approval. Loan recipients will use their own procurement procedures which reflect applicable state and local laws and regulations.

006.01A The Department shall review the bidding documents and authorize award of the construction contract.

006.01B In case of a single bid, the loan recipient may return the bid to the bidder unopened, promptly notify the Department, and readvertise the project.

006.02 Preconstruction Conference. The loan recipient or its engineer is encouraged to arrange a preconstruction conference prior to issuing the notice to proceed. The purpose of the preconstruction conference is to coordinate schedules, review and emphasize regulatory requirements, resolve questions, and set the ground rules for working together during construction. At a minimum, participants in this conference should include the loan recipient, the construction contractor, and the engineer. The loan recipient should inform and seek the Department's participation in the preconstruction conference.

006.03 Monitoring Construction. The loan recipient shall provide and maintain competent and adequate engineering supervision and resident inspection during construction.

006.03A Department Inspections. Department officials shall monitor and inspect project construction. Department officials may also attend construction progress meetings. The purpose of these inspections shall be to ensure that construction is progressing on schedule in accordance with approved plans/specifications and to determine compliance with terms of the loan contract. The loan

recipient is required to correct all the deficiencies which are brought to their attention as a result of Department inspection. When the project is considered substantially complete and is operating as intended, the Department shall perform a final inspection.

006.03B Initiation of operation. The loan recipient shall notify the Department in writing of the date of initiation of operation.

006.04 Change Orders. A change order is a written document, issued by the loan recipient to a contractor, which alters the price, time of completion, or any other requirement(s) of the original contract documents.

006.04A The loan recipient is responsible for the adequate and prompt management of change orders.

006.04B The loan recipient shall seek the Department's approval of all change orders and will provide documentation to support the cost and scope of work defined in the change order.

006.04C The loan recipient may request additional funds for approved change orders if the additional work results in costs which will exceed the funds allocated to the project under the original contract.

006.04D Additional funds may be made available to the loan recipient if the change order costs are considered eligible and allowable subject to availability of funds.

006.05 Operation and Maintenance Manual. The operation and maintenance manual provides the information and guidance for the day-to-day effective and efficient operation and maintenance of the project.

006.05A The loan recipient shall submit a draft of the operation and maintenance manual to the Department before loan disbursements exceed 75% of the total project costs.

006.05B The loan recipient shall submit a final operation and maintenance manual to the Department and receive approval before loan disbursements exceed 95% of the total project costs. This obligation of the loan recipient will be defined in the loan contract.

006.06 Force Account. Project work which will be performed by the employees of the loan recipient may be categorized as force account. All significant elements of work should be performed through the competitive bidding process.

006.06A The loan recipient may elect to complete certain project work by force account. In order to undertake this responsibility, the loan recipient shall:

006.06A1. Seek prior approval from the Department;

006.06A2. Document that this work shall be performed in an efficient and cost-effective manner; and

006.06A3. Ensure that specific details of the force account effort are included in the loan contract as part of the project scope.

006.06B The loan recipient shall receive loan disbursements for force account work upon receipt of documentation which verifies the costs incurred. Only direct labor and material cost is eligible

for loan participation under this provision.

006.07 Small Purchases. The loan recipient may use small purchase provisions in accordance with applicable state and local laws and regulations, with prior approval of the Department.. Payment for this work will require the submittal of documentation such as invoices and receipts.

007 Effect of Approval or Certification of Documents. Review or approval of facility plans, design drawings and specifications, or other documents by the Department does not relieve the loan recipient of its responsibility to properly plan, design, build, and effectively operate and maintain the Wastewater Treatment Works described in the loan contract as required under the Act, regulations, permits, and good management practices.

008 Access to Individual On-Site Systems. Loan recipients receiving loans for alternatives including individual on-site systems on private property shall provide assurance of access to the systems at all reasonable times for such purposes as inspection, monitoring, building, operation, rehabilitation, and replacement.

009 Sewer Use Ordinances/User Charge Systems. The loan recipient shall include the following ordinance provisions for its sewer use ordinance/user charge system. These legally binding documents shall be submitted to the Department for review and be adopted and implemented by the loan recipient before the Wastewater Treatment Works is placed in operation. The loan recipient shall also implement the user charge system and sewer use ordinance for the useful life of the Wastewater Treatment Works.

009.01 Sewer Use Ordinance. This legally binding ordinance shall prohibit any new connections from inflow sources into the Wastewater Treatment Works and require that new sewers and connections to the Wastewater Treatment Works are properly designed and constructed. This ordinance shall also require that all wastewater introduced into the Wastewater Treatment Works not contain toxics or other pollutants in amounts or concentrations that endanger public safety and physical integrity of the Wastewater Treatment Works; cause violation of effluent or water quality limitations; or preclude the selection of the most cost-effective alternative for wastewater treatment and sludge disposal.

009.02 User Charge System. The user charge system shall be designed to produce adequate revenues required for operation and maintenance (including replacement) and also to retire debt incurred due to construction of Wastewater Treatment Works if the user charge system was utilized as the dedicated revenue source. These revenues shall be maintained in at least two separate accounts, one for the operation and maintenance costs (including replacement) and the other for debt retirement costs. The requirements for the debt retirement account shall be defined in the loan contract. Additional accounts may be provided to meet other requirements of the loan recipient.

009.02A The loan recipient's user charge system, based on actual or estimated use of wastewater treatment services, shall provide that each user or user class pay its proportionate share of operation and maintenance (including replacement) costs of Wastewater Treatment Works within the Municipality's or County's service area, based on the user's proportionate contribution to the total wastewater loading from all users or user classes.

009.02B Each user charge system shall include an adequate financial management system that will accurately account for revenues generated by the system and expenditures for operation

and maintenance (including replacement) of the Wastewater Treatment Works, based on an adequate budget identifying the basis for determining the annual operation and maintenance costs and the costs of personnel, material, energy, and administration. 009.02C The user charge system shall provide that the costs of operation and maintenance for all flow not directly attributable to users (i.e. infiltration/inflow) be distributed among all users based upon either of the following:

009.02C1. In the same manner that it distributes the costs for their actual use, or

009.02C2. Under a system which uses one or any combination of the following factors on a reasonable basis: flow volume of the users, land area of the users, or number of hookups or discharges of the users.

009.02D After completion of building a project, revenue from the project (e.g. sale of a treatment-related byproduct) shall be used to offset the costs of operation and maintenance. The loan recipient shall proportionately reduce all user charges.

009.02E One or more municipal legislative enactments or other appropriate authority shall incorporate the user charge system. If the loan recipient accepts wastewater from other wastewater generators, the subscribers receiving waste treatment services from the loan recipient shall adopt user charge systems in accordance with this section. Acceptable user charge systems shall also be incorporated in appropriate municipal legislative enactments or other appropriate authority of all loan recipients contributing wastes to the Wastewater Treatment Works.

009.02F The user charge system shall take precedence over any terms or conditions of agreements or contracts which are inconsistent with the requirements of this section.

Enabling Legislation: Neb. Rev. Stat. §§81-15,152; 81-15,153.

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For more information, contact
MoreInfo@NDEQ.state.NE.US

Nebraska Department of Environmental Quality
1200 "N" Street, Suite 400
PO Box 98922
Lincoln, NE 68509
(402)471-2186 fax: (402)471-2909